WINZLER & KELLY
CONSULTING ENGINEERS

Ref: 02343-05001-32003

August 3, 2006

Dr. Richard Mani
8 Pelican Point Road
Belvedere, CA 94920

Re: Quarterly Groundwater Monitoring Report – Second Quarter 2006, Mani Site, 200 Talmadge Drive, Santa Rosa, California, NCRWQCB Case No. 1TSR279

Dear Dr. Mani:

This report presents Winzler & Kelly Consulting Engineers' (Winzler & Kelly's) results of the second quarter 2006 groundwater monitoring and sampling performed on June 13 and 15, 2006, at the site located at 200 Talmadge Drive, Santa Rosa, California (Figures 1 and 2). Additionally, an update of the remedial system is provided.

SECOND QUARTER GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

The Site-Specific Sampling Procedures, provided in Appendix A, describe in detail all of the monitoring and sampling activities that were performed at the site on June 13 and 15, 2006. A brief summary of these activities is also provided below.

FIELD ACTIVITIES

Personnel Present: Winzler & Kelly's Environmental Engineer, Pon Xayasaeng, and Environmental Scientist, Lenny Laskowsky, performed all the groundwater monitoring and sampling activities.

Dissolved Oxygen: On June 13, 2006, dissolved oxygen (DO) concentrations were measured in each monitoring well at the site. The measurements were obtained using a calibrated DO meter while the biosparge system was operating.

Biosparge Shutdown: On June 13, 2006, the biosparge system was shutdown following DO measurements to allow groundwater levels to equilibrate.

Depth-to-Water: The depth-to-groundwater (DTW) was measured in each monitoring well (MW-1, MW-2, MW-4, MW-5 and MW-6) on June 13, 2006, while the biosparge system was operating. DTW was measured again on June 15, 2006, while the biosparge system was not operating and after groundwater levels had equilibrated to atmospheric pressure for at least 30 minutes. The measurements were obtained using an electronic water level meter. A copy of the Water Level Measurement Data Sheet is provided in Appendix B.

▼ 495 Tesconi Circle, Santa Rosa, CA 95401-4696 ▼
tel 707.523.1010 fax 707.527.8679
www.w-and-k.com
▼

Purging: On June 15, 2006, an electronic 12-volt 1.5-inch submersible pump was used to purge each monitoring well at the site. Copies of the Well Sampling Data Sheets are provided in Appendix B.

Groundwater Sampling: Groundwater samples were collected on June 15, 2006, from each monitoring well at the site. New disposable bailers were used to collect and transfer the groundwater samples from each monitoring well into the appropriate, laboratory-supplied, certified clean sample containers.

Chemical Analysis: Analytical Sciences Laboratory (Analytical Sciences) of Petaluma, California (a California-certified laboratory) analyzed the groundwater samples for total petroleum hydrocarbons as gasoline (TPH-G) and as diesel (TPH-D) by EPA Method 8015M, for benzene, toluene, ethyl benzene, and total xylenes (BTEX) and oxygenated fuel additives by EPA Method 8260B, for nitrate as nitrogen, nitrite as nitrogen, and phosphate by EPA Method 300, and for ammonia as nitrogen by EPA Method 350.3.

Nutrient Injection: A total of five nutrient injections have been performed at the site. The fifth nutrient injection was performed on June 30, 2006. Five pounds of potassium nitrate was mixed with 5 gallons of carbon-filtered water and injected into sparge points SP-2, SP-3, SP-4, and SP-5. Twenty gallons of carbon-filtered water was injected into each sparge point, following the nutrient solution.

Nutrient Monitoring: On August 4, 2006, grab groundwater samples were collected and submitted to Analytical Sciences for analysis of nitrate as nitrogen and nitrite as nitrogen by EPA Method 300. Nutrient concentrations will be reported in the next quarterly groundwater monitoring report (third quarter 2006).

SECOND QUARTER 2006 GROUNDWATER MONITORING AND SAMPLING RESULTS

The groundwater elevation data and groundwater flow direction are presented in Tables 1 and 2. A groundwater contour map illustrating the groundwater contours while the system was not operating on June 15, 2006, is provided as Figure 3. As shown on Figure 3, the groundwater is flowing towards the southwest at a gradient of 0.01 ft/ft.

On June 13, 2006, the DO concentrations measured in each well ranged from 2.10 to 12.65 mg/L. DO concentrations in monitoring wells MW-1, MW-4, and MW-6 are above background concentrations, which indicate that the biosparge system is effectively introducing oxygen into the aquifer. DO concentrations in MW-2 and MW-5 are slightly above background DO concentrations because these wells are on the perimeter of the sparge point's radius of influence. DO concentration results are summarized in Table 3.

Analytical results of the June 15, 2006 groundwater nutrient analysis indicated low levels of nitrate as nitrogen in each monitoring well except for MW-1, which reported nitrate as nitrogen at a concentration of 2.3 mg/L. This concentration is below the Maximum Contaminant Level (MCL) of 10 mg/L. Nitrite as nitrogen, ammonia as nitrogen, and phosphate were not detected in any of the monitoring wells sampled.

The rapid depletion of nutrients observed through analytical data, suggests an increase in microbial activity and aerobic digestion of petroleum hydrocarbons at the site. The analytical results are summarized in Table 4.

Analytical results of the June 15, 2006 sampling event reported petroleum related constituents above the laboratory's reportable detection limits (RDL) only in groundwater samples collected from MW-1 and MW-5. TPH-G, ethyl benzene, and total xylenes were reported in MW-1 at concentrations of 98, 2.5, and 1.7 µg/L, respectively. TPH-G and methyl tert-butyl ether (MTBE) were reported in MW-5 at concentrations of 120 and 2.2 µg/L, respectively. Concentrations reported, except for TPH-G, are below the Water Quality Objectives. Concentrations reported in the groundwater samples collected from MW-1 during the June 15, 2006 sampling event show a slight increase from the previous sampling event. This may be due to the combination of seasonal high groundwater levels and air sparging desorbing hydrocarbons from the vadose zone. Furthermore, the elevated solubility of hydrocarbons may be related to the increase in biological activity generated from the air injections.

Laboratory analyses of the groundwater samples collected on June 15, 2006, from monitoring wells MW-2, MW-4, and MW-6, did not quantify any petroleum related hydrocarbons above the laboratory's RDLs. The analytical results are summarized in Table 5. Figure 4 depicts the TPH-G, benzene, and MTBE concentrations that were detected in the groundwater samples collected on June 15, 2006.

The laboratory QA/QC included the use of method blanks to exclude false-positive analyses and the use of laboratory control samples to evaluate the percentage recovery of known analyte spikes. The recovery percentages for each of the sample analytes were within acceptable ranges. Constituents of concern (COCs) were not detected in the analysis of the trip blank. The complete laboratory report, QA/QC data, and the chain-of-custody form are included in Appendix C.

BIOSPARGE SYSTEM UPDATE

On June 13, 2006, Winzler & Kelly staff noted that the compressor pressure switch on the biosparge system began to show signs of failure. The biosparge system was turned off for the groundwater monitoring and sampling event and to repair the pressure switch. A new pressure switch was ordered and installed on June 21, 2006. The pressure switch was set at a range of 50-70 pounds square inch (psi) and the biosparge system was re-started.

Biosparge points SP-1 through SP-5 are currently operating for 60 minutes per cycle. The maximum sparge point injection pressure is set at approximately 20-24 psi and the air flow rate is set at 6.0 standard cubic foot per minute (scfm). The biosparge system has been operating as designed for approximately 680 days as of June 21, 2006. With the system shutdown for minor repairs, upgrades, and for sampling events the biosparge system has been operational for approximately 92% of the time since the start-up on June 9, 2004.

GEOTRACKER DATA ENTRY

As required by Assembly Bill AB2886, Winzler & Kelly has submitted their Annual Groundwater Monitoring Report Including First Quarter 2006 and the laboratory EDF report and the well measurement

file for the June 15, 2006 groundwater sampling event to the GeoTracker database. Copies of upload verifications are included in Appendix D. Winzler & Kelly will submit the lab data upon receipt and this report to the GeoTracker database upon completion.

CONCLUSIONS AND RECOMMENDATIONS

Biosparging in the area of MW-1 and MW-4 has significantly contributed to the decrease in COCs by enhancing microbial metabolization of the petroleum-related hydrocarbons. COCs in MW-4 have been non-detect for the past four quarters and COCs in MW-1 show a decreasing trend (Graphs 1 and 2). There is a slight increase of TPH-G in MW-1 during the June 15, 2006 sampling event which may be attributed to the increase in groundwater levels desorbing residual COCs from the smear zone.

With concurrence from the North Coast Regional Water Quality Control Board on May 9, 2006, an additional sparge point (SP-6) will be installed to enhance microbial metabolization of COCs in the area of MW-5. SP-6 will be extended from SP-5 using the existing junction box and piping at SP-5 and will be installed in accordance with the approved Winzler & Kelly August 2003 Remedial Action Plan and System Design procedures for sparge point installation. Sparge point installation activities are planned for the third quarter 2006.

Winzler & Kelly will continue to perform quarterly groundwater monitoring and sampling and nutrient injections activities at the site. The third quarter 2006 monitoring and sampling and nutrient injection events are scheduled for September 2006. A quarterly monitoring report will follow the monitoring and sampling event.

Should you have any questions or comments regarding this project, please contact Mr. David J. Vossler, Project Manager, at (707) 523-1010.

Sincerely,
WINZLER & KELLY

P. Xayasaeng

Pon Xayasaeng
Environmental Engineer

Elizabeth A Cargay

Elizabeth A. Cargay, PG, REA
Senior Geologist

PROFESSIONAL GEOLOGIST
ELIZABETH A. CARGAY
No.8228
STATE OF CALIFORNIA

sc

Attachments

Figures:

- Figure 1 – Vicinity Map
- Figure 2 – Site Map
- Figure 3 – Groundwater Contour Map
- Figure 4 – Petroleum Hydrocarbon Concentrations in Groundwater

Tables:

- Table 1 – Water Level Data and Well Construction Details
- Table 2 – Groundwater Gradient and Flow Direction
- Table 3 – Dissolved Oxygen and Indicator Parameters
- Table 4 – Analytical Results of Nutrient Compounds
- Table 5 – Analytical Results of Groundwater Samples

Graphs:

- Graph 1 – TPH-G Concentrations vs. Groundwater Elevations Over Time in MW-1
- Graph 2 – TPH-G Concentrations vs. Groundwater Elevations Over Time in MW-4

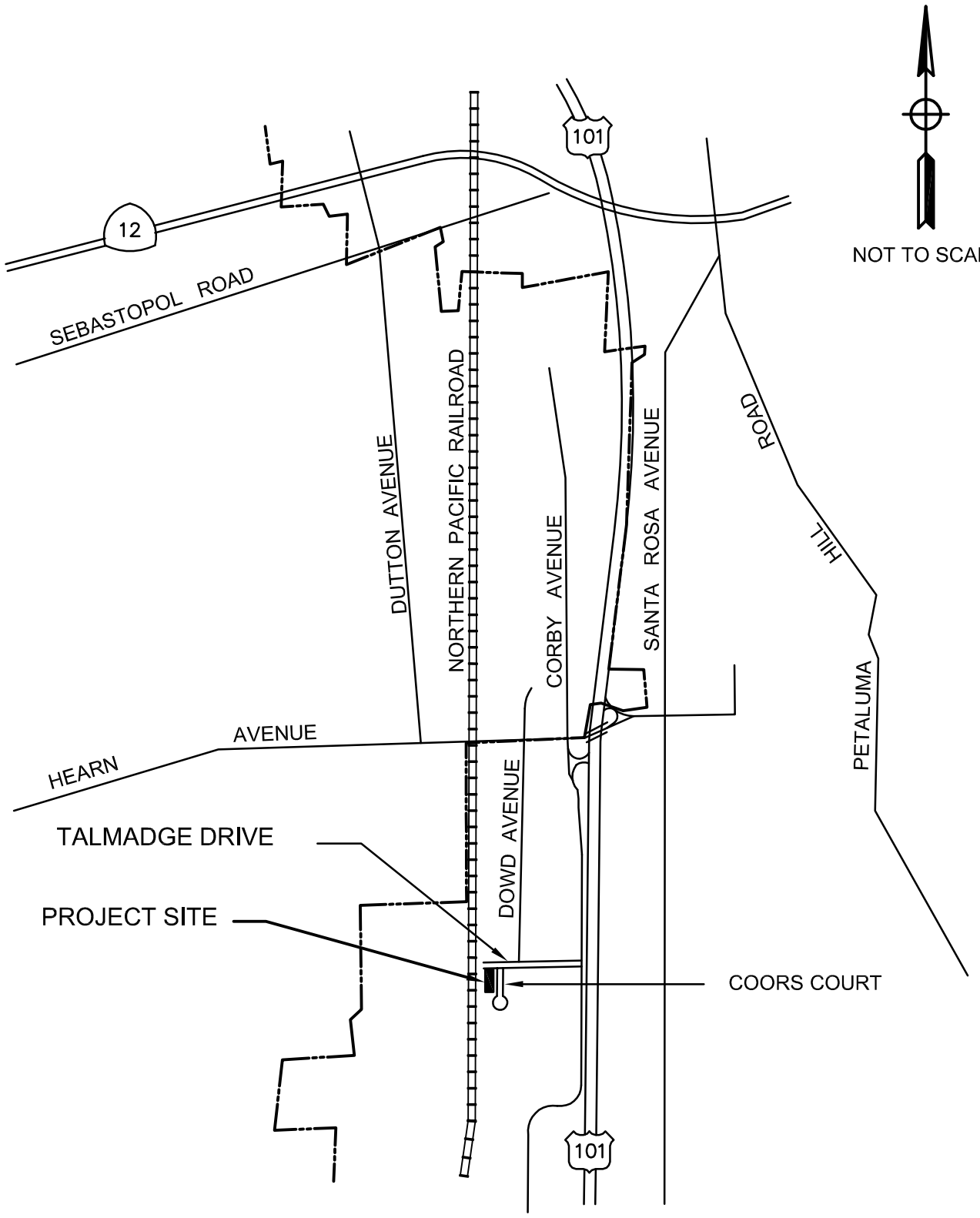
Appendices:

- Appendix A – Site-Specific Sampling Procedures
- Appendix B – Well Sampling Data Sheets
- Appendix C – Analytical Laboratory Reports
- Appendix D – GeoTracker Upload Verifications

c: Mr. Jim Tischler, North Coast Regional Water Quality Control Board, 5550 Skylane Boulevard, Suite A, Santa Rosa, CA 95403

Mr. Don Wehr, 1839 Bella Vista Avenue, Santa Rosa, CA 95403

Figures

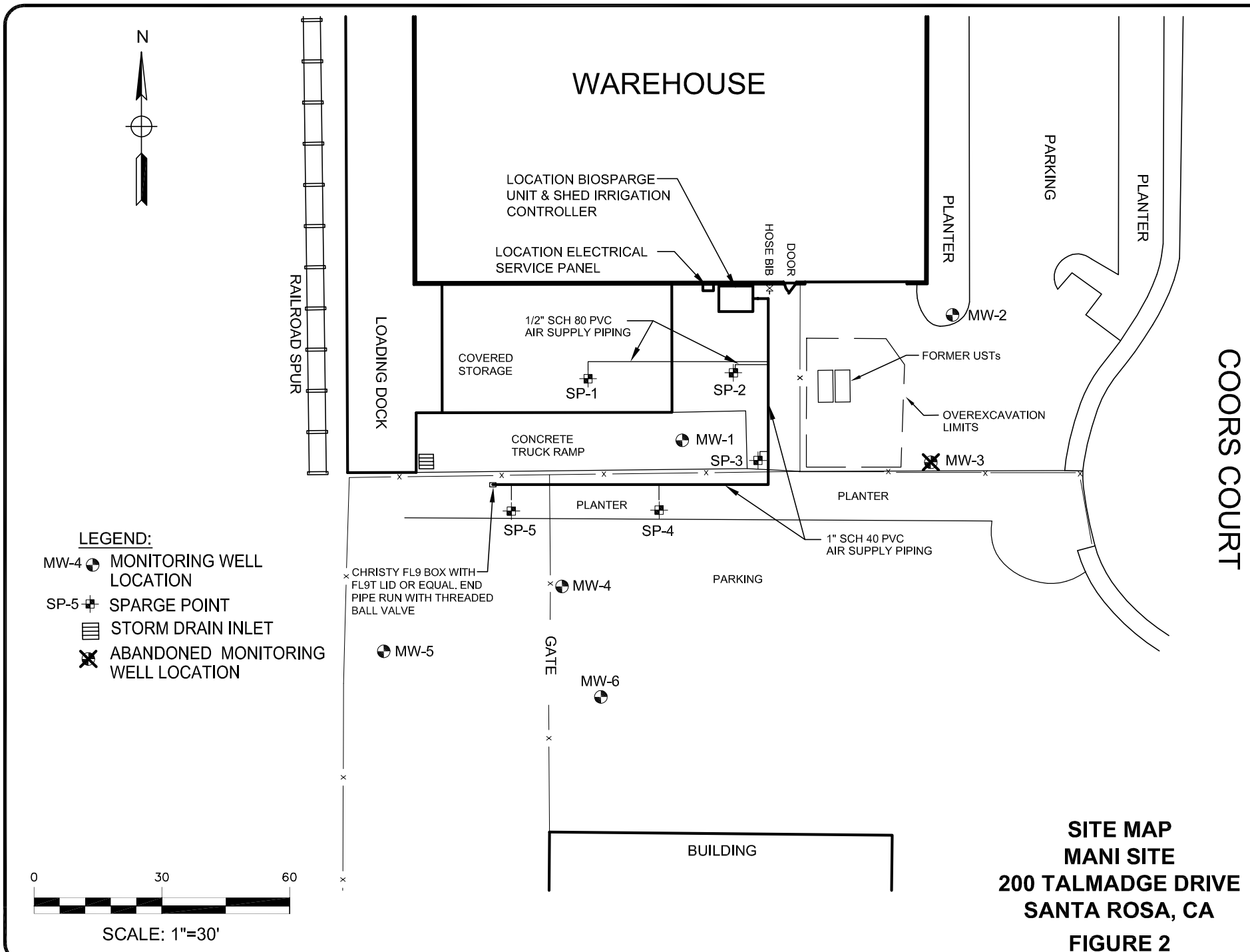


VICINITY MAP
MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA
FIGURE 1

WINZLER & KELLY
CONSULTING ENGINEERS

J:\03\234301\cad\34301F01.dwg Aug 17, 2006 - 2:57pm

J:\03\234301\cad\piping.dwg Aug 15, 2006 – 3:39pm

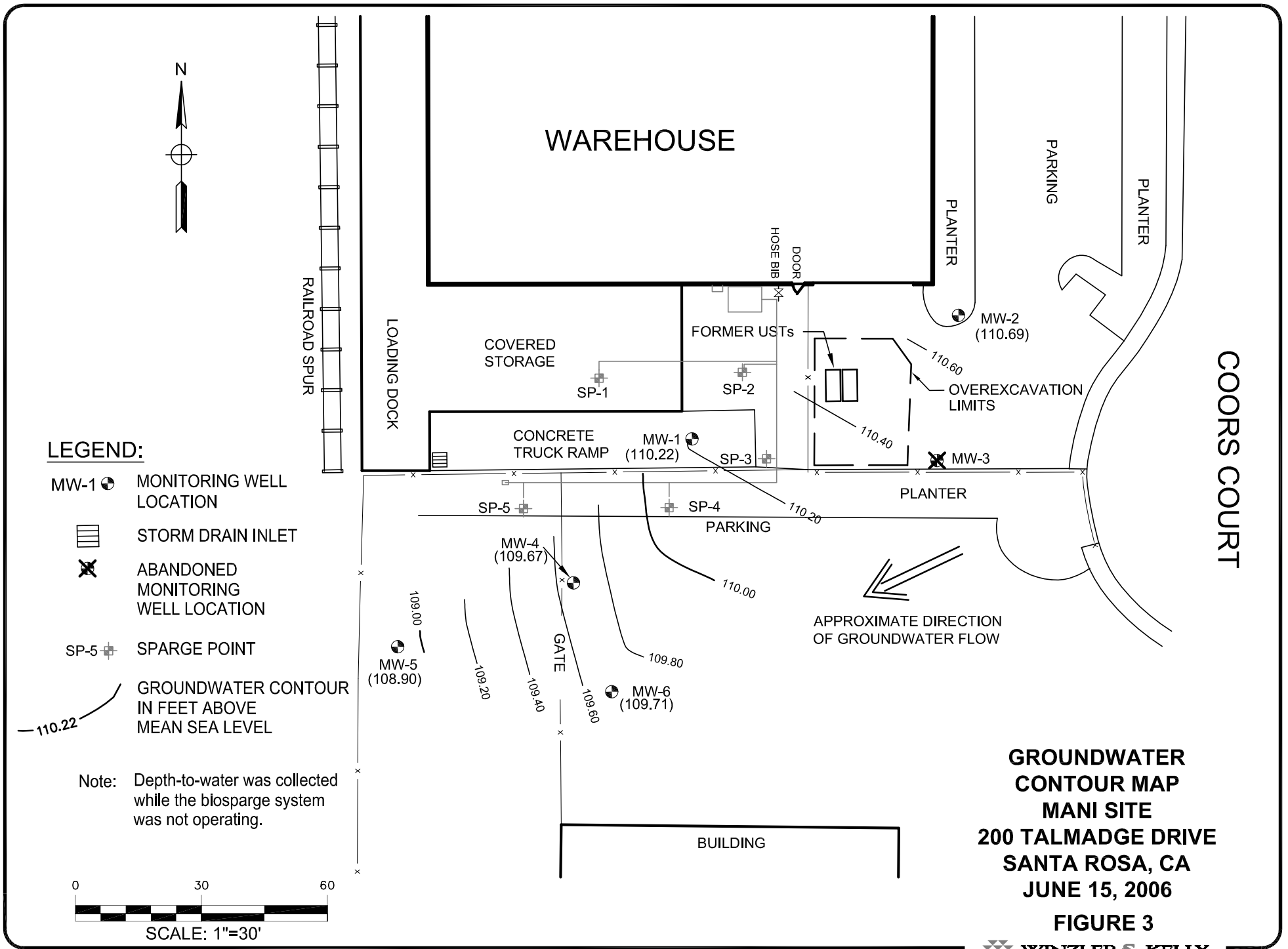


SITE MAP
MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA

FIGURE 2

WINZLER & KELLY
CONSULTING ENGINEERS

J:\03\234301\cad\GW-Cont.dwg Aug 15, 2006 - 3:40pm

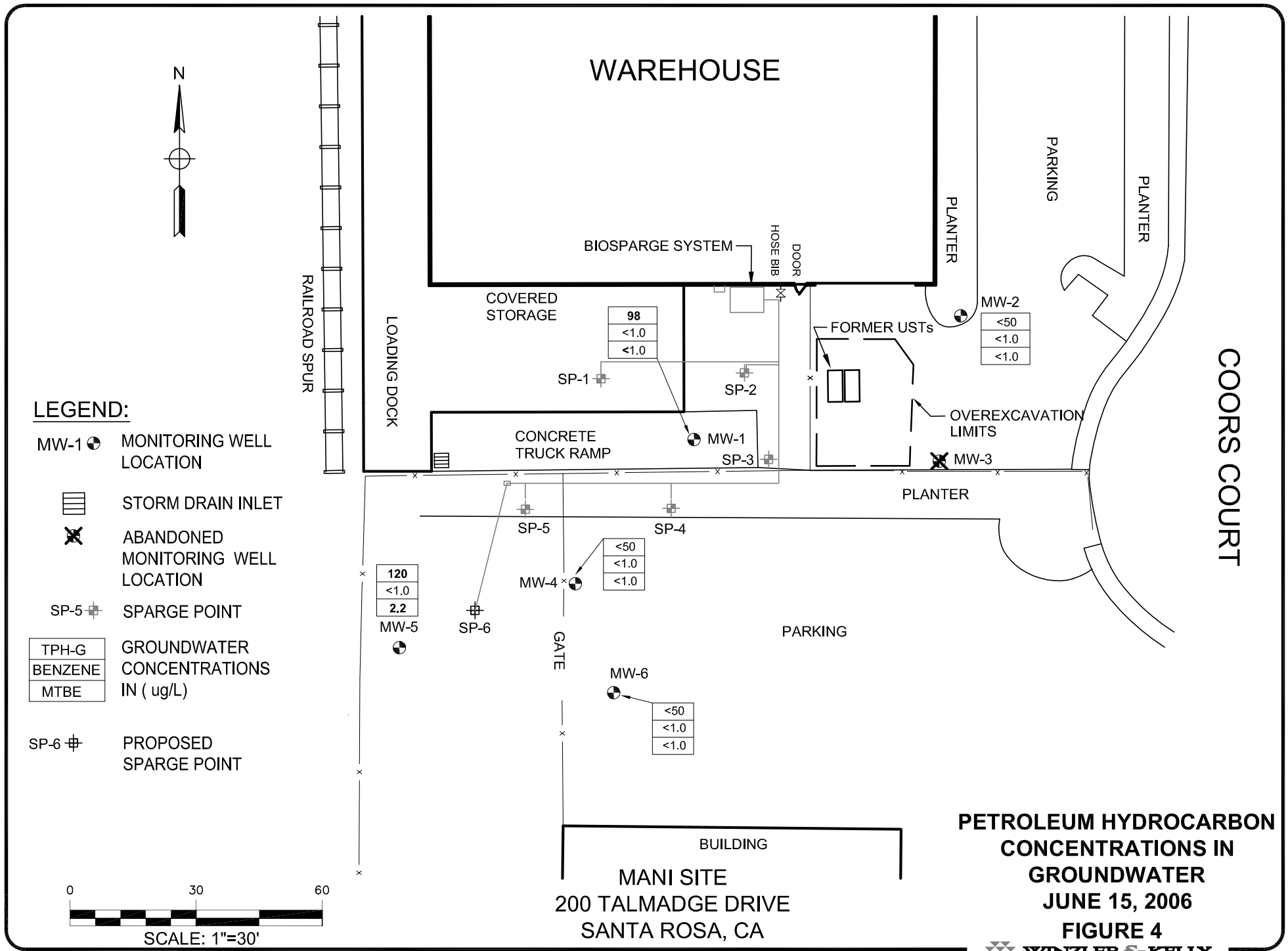


GROUNDWATER CONTOUR MAP
MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA
JUNE 15, 2006

FIGURE 3

WINZLER & KELLY
CONSULTING ENGINEERS

J:\03\234301\cad\GW-BOX-1.dwg Aug 15, 2006 - 3:42pm



Tables

Table 1. Water Level Data and Well Construction Details

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date	Groundwater Elevation (Mean Sea Level)		Depth-to-Water		Top of Casing Elevation (Mean Sea Level)	Free Product Thickness	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval
		System On	System Off	System On	System Off		feet			
MW-1	2/2/1995	NM	110.41	NM	8.25	118.66	-	10.0-25.0	8.0-25.0	6.0-8.0
	3/19/1998	NM	111.51	NM	7.15		-			
	9/9/1999	NM	106.31	NM	12.35		-			
	10/11/1999	NM	105.65	NM	13.01		-			
	11/17/1999	NM	105.24	NM	13.42		0.00			
	12/15/1999	NM	105.08	NM	13.58		0.00			
	1/12/2000	NM	104.77	NM	13.89		0.00			
	2/10/2000	NM	106.70	NM	11.96		0.00			
	3/15/2000	NM	111.09	NM	7.57		0.00			
	4/13/2000	NM	109.87	NM	8.79		0.00			
	5/12/2000	NM	109.41	NM	9.25		0.00			
	6/15/2000	NM	108.39	NM	10.27		0.00			
	7/14/2000	NM	107.24	NM	11.42		0.00			
	3/6/2001	NM	108.06	NM	10.63	118.69	0.00			
	6/6/2001	NM	106.70	NM	11.99		0.00			
	9/12/2001	NM	104.58	NM	14.11		0.00			
	12/13/2001	NM	106.28	NM	12.41		0.00			
	3/21/2002	NM	110.54	NM	8.15		0.00			
	6/14/2002	NM	108.09	NM	10.60		NM			
	9/10/2002	NM	105.69	NM	13.00		NM			
	12/11/2002	NM	104.81	NM	13.88		NM			
	3/25/2003	NM	109.76	NM	8.93		NM			
	6/27/2003	NM	109.07	NM	9.62		NM			
	10/1/2003	NM	106.05	NM	12.64		NM			
	12/12/2003	NM	106.24	NM	12.45		NM			
	3/26/2004	NM	110.34	NM	8.35		NM			
	7/9/2004	NM	107.43	NM	11.26		NM			
	9/21/2004	NM	105.63	NM	13.06		NM			
	12/20/04 & 12/21/04	106.15	106.09	12.54	12.60		NM			
	3/16/05 & 3/17/05	110.60	110.58	8.09	8.11		NM			
	6/9/05 & 6/13/05	110.69	110.54	8.00	8.15		NM			
	9/28/05 & 9/29/05	106.88	107.44	11.81	11.25		NM			
	12/12/05 & 12/13/05	109.49	107.65	9.20	11.04		NM			
	3/21/06 & 3/22/06	111.98	111.77	6.71	6.92		NM			
	6/13/06 & 6/15/06	110.05	110.22	8.64	8.47		NM			
MW-2	2/2/1995	NM	111.08	NM	9.27	120.35	-	10.0-25.0	8.0-25.0	6.0-8.0
	3/19/1998	NM	112.08	NM	8.27		-			
	9/9/1999	NM	106.72	NM	13.63		-			
	10/11/1999	NM	106.04	NM	14.31		-			
	11/17/1999	NM	105.59	NM	14.76		0.00			
	12/15/1999	NM	105.37	NM	14.98		0.00			
	1/12/2000	NM	105.04	NM	15.31		0.00			
	2/10/2000	NM	107.00	NM	13.35		0.00			
	3/15/2000	NM	111.39	NM	8.96		0.00			
	4/13/2000	NM	110.24	NM	10.11		0.00			
	5/12/2000	NM	109.80	NM	10.55		0.00			
	6/15/2000	NM	108.78	NM	11.57		0.00			
	7/14/2000	NM	107.64	NM	12.71		0.00			
	3/6/2001	NM	108.33	NM	12.04	120.37	0.00			
	6/6/2001	NM	107.05	NM	13.32		0.00			
	9/12/2001	NM	104.89	NM	15.48		0.00			
	12/13/2001	NM	106.54	NM	13.83		0.00			
	3/21/2002	NM	110.80	NM	9.57		0.00			
	6/14/2002	NM	108.45	NM	11.92		NM			
	9/10/2002	NM	106.07	NM	14.30		NM			
	12/11/2002	NM	105.11	NM	15.26		NM			
	3/25/2003	NM	110.10	NM	10.27		NM			
	6/27/2003	NM	109.55	NM	10.82		NM			
	10/1/2003	NM	106.47	NM	13.90		NM			
	12/12/2003	NM	106.62	NM	13.75		NM			
	3/26/2004	NM	110.68	NM	9.69		NM			
	7/9/2004	NM	107.89	NM	12.48		NM			
	9/21/2004	NM	106.04	NM	14.33		NM			
	12/20/04 & 12/21/04	106.49	106.40	13.88	13.97		NM			
	3/16/05 & 3/17/05	110.92	110.89	9.45	9.48		NM			
	6/9/05 & 6/13/05	111.07	110.98	9.30	9.39		NM			
	9/28/05 & 9/29/05	107.97	107.91	12.40	12.46		NM			
	3/21/06 & 3/22/06	112.26	112.09	8.11	8.28		NM			
	6/13/06 & 6/15/06	110.60	110.69	9.77	9.68		NM			

Table 1. Water Level Data and Well Construction Details

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date	Groundwater Elevation (Mean Sea Level)		Depth-to-Water		Top of Casing Elevation (Mean Sea Level)	Free Product Thickness	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval
		System On	System Off	System On	System Off		feet			
MW-3	2/2/1995		110.52		9.47	119.99	-	10.0-25.0	8.0-25.0	6.0-8.0
	3/19/1998		111.41		8.58		-			
	9/9/1999		106.57		13.42		-			
	10/11/1999		105.89		14.10		-			
	11/17/1999		105.46		14.53		0.00			
	12/15/1999		105.25		14.74		0.00			
	1/12/2000		104.95		15.04		0.00			
	2/10/2000		106.88		13.11		0.00			
	3/15/2000		111.30		8.69		0.00			
	4/13/2000		110.12		9.87		0.00			
	5/12/2000		109.66		10.33		0.00			
	6/15/2000		108.64		11.35		0.00			
	7/14/2000		107.49		12.50		0.00			
	3/6/2001		108.24		11.77	120.01	0.00			
	6/6/2001		106.93		13.08		0.00			
	9/12/2001		104.79		15.22		0.00			
	12/13/2001		106.42		13.59		0.00			
	1/24/2002	MW-3 Destroyed								
MW-4	3/21/2002	NM	110.02	NM	7.90	117.92	NM	5.0-20.0	4.0-20.0	3.0-4.0
	6/14/2002	NM	107.27	NM	10.65		NM			
	9/10/2002	NM	104.81	NM	13.11		NM			
	12/11/2002	NM	104.01	NM	13.91		NM			
	3/25/2003	NM	109.16	NM	8.76		NM			
	6/27/2003	NM	108.22	NM	9.70		NM			
	10/1/2003	NM	105.17	NM	12.75		NM			
	12/12/2003	NM	105.36	NM	12.56		NM			
	3/26/2004	NM	109.72	NM	8.20		NM			
	7/9/2004	NM	106.54	NM	11.38		NM			
	9/21/2004	NM	104.81	NM	13.11		NM			
	12/20/04 & 12/21/04	105.52	105.47	12.40	12.45		NM			
	3/16/05 & 3/17/05	110.06	110.07	7.86	7.85		NM			
	6/9/05 & 6/13/05	110.08	110.01	7.84	7.91		NM			
	9/28/05 & 9/29/05	107.10	106.80	10.82	11.12		NM			
	12/12/05 & 12/13/05	107.27	107.12	10.65	10.80		NM			
	3/21/06 & 3/22/06	112.50	111.38	5.42	6.54		NM			
	6/13/06 & 6/15/06	109.54	109.67	8.38	8.25		NM			
MW-5	3/21/2002	NM	109.42	NM	8.21	117.63	NM	5.0-20.0	4.0-20.0	3.0-4.0
	6/14/2002	NM	106.53	NM	11.10		NM			
	9/10/2002	NM	103.99	NM	13.64		NM			
	12/11/2002	NM	103.21	NM	14.42		NM			
	3/25/2003	NM	108.53	NM	9.10		NM			
	6/27/2003	NM	107.40	NM	10.23		NM			
	10/1/2003	NM	104.40	NM	13.23		NM			
	12/12/2003	NM	104.65	NM	12.98		NM			
	3/26/2004	NM	109.11	NM	8.52		NM			
	7/9/2004	NM	105.89	NM	11.74		NM			
	9/21/2004	NM	104.08	NM	13.55		NM			
	12/20/04 & 12/21/04	104.97	104.90	12.66	12.73		NM			
	3/16/05 & 3/17/05	109.59	109.58	8.04	8.05		NM			
	6/9/05 & 6/13/05	109.47	109.33	8.16	8.30		NM			
	9/28/05 & 9/29/05	106.13	106.05	11.50	11.58		NM			
	12/12/05 & 12/13/05	106.64	106.52	10.99	11.11		NM			
	3/21/06 & 3/22/06	111.02	110.85	6.61	6.78		NM			
	6/13/06 & 6/15/06	108.83	108.90	8.80	8.73		NM			
MW-6	3/21/2002	NM	110.10	NM	7.46	117.56	NM	5.0-20.0	4.0-20.0	3.0-4.0
	6/14/2002	NM	107.52	NM	10.04		NM			
	9/10/2002	NM	105.12	NM	12.44		NM			
	12/11/2002	NM	104.33	NM	13.23		NM			
	3/25/2003	NM	109.29	NM	8.27		NM			
	6/27/2003	NM	108.45	NM	9.11		NM			
	10/1/2003	NM	105.50	NM	12.06		NM			
	12/12/2003	NM	105.67	NM	11.89		NM			
	3/26/2004	NM	109.87	NM	7.69		NM			
	7/9/2004	NM	106.90	NM	10.66		NM			
	9/21/2004	NM	105.13	NM	12.43		NM			
	12/20/04 & 12/21/04	105.72	105.65	11.84	11.91		NM			
	3/16/05 & 3/17/05	110.19	110.19	7.37	7.37		NM			
	6/9/05 & 6/13/05	NM	110.10	NM	7.46		NM			
	9/28/05 & 9/29/05	107.16	106.96	10.40	10.60		NM			
	12/12/05 & 12/13/05	107.39	107.24	10.17	10.32		NM			
	3/21/06 & 3/22/06	111.58	111.42	5.98	6.14		NM			
	6/13/06 & 6/15/06	109.63	109.71	7.93	7.85		NM			

Table 1. Water Level Data and Well Construction Details

Mani Site
200 Talmadge Drive, Santa Rosa, California

Well ID	Date	Groundwater Elevation (Mean Sea Level)		Depth-to-Water		Top of Casing Elevation (Mean Sea Level)	Free Product Thickness	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval
		System On	System Off	System On	System Off		feet			
SP-1	6/1/2004	NM	NM	NM	11.58	NM	NM	14-17	13.5-19.5	0-13.5
SP-2	6/1/2004	NM	NM	NM	11.41	NM	NM	20-23	19-23	0-19.0
SP-3	6/1/2004	NM	NM	NM	11.07	NM	NM	19-22	18.5-24	0-18.5
SP-4	6/1/2004	NM	NM	NM	10.29	NM	NM	19-22	18.5-22	0-18.5
SP-5	6/1/2004	NM	NM	NM	10.87	NM	NM	14.5-17.5	14-19.5	0-14.0

Abbreviations:

NM = Not Measured

Notes: Monitoring wells were resurveyed on March 13, 2001, and it was discovered that the top-of-casing elevations for MW-2 and MW-3 had been entered in the reverse order when the table was created. This table reflects the corrected top-of-casing elevations, and corresponding groundwater elevations for MW-2 and MW-3.

Table 2. Groundwater Gradient and Flow Direction

Mani Site
200 Talmadge Drive, Santa Rosa, California

Date	Groundwater Gradient (ft/ft)	Flow Direction	Wells used for Calculating Gradient and Flow Direction
2/2/1995	0.02	South 13^0 West	MW-1, MW-2, MW-3
3/19/1998	0.02	South 5^0 East	MW-1, MW-2, MW-3
9/9/1999	0.01	South 52^0 West	MW-1, MW-2, MW-3
10/11/1999	0.01	South 50^0 West	MW-1, MW-2, MW-3
11/17/1999	0.01	South 51^0 West	MW-1, MW-2, MW-3
12/15/1999	0.01	South 47^0 West	MW-1, MW-2, MW-3
1/12/2000	0.01	South 54^0 West	MW-1, MW-2, MW-3
2/10/2000	0.01	South 49^0 West	MW-1, MW-2, MW-3
3/15/2000	0.01	South 57^0 West	MW-1, MW-2, MW-3
4/13/2000	0.01	South 55^0 West	MW-1, MW-2, MW-3
5/12/2000	0.01	South 52^0 West	MW-1, MW-2, MW-3
6/15/2000	0.01	South 52^0 West	MW-1, MW-2, MW-3
7/14/2000	0.01	South 51^0 West	MW-1, MW-2, MW-3
3/6/2001	0.01	South 55^0 West	MW-1, MW-2, MW-3
6/6/2001	0.01	South 55^0 West	MW-1, MW-2, MW-3
9/12/2001	0.01	South 56^0 West	MW-1, MW-2, MW-3
12/13/2001	0.01	South 47^0 West	MW-1, MW-2, MW-3
3/21/2002	0.01	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/14/2002	0.02	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
9/10/2002	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/11/2002	0.02	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
3/25/2003	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/27/2003	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
10/1/2003	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/12/2003	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
3/26/2004	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
7/9/2004	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
9/21/2004	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/21/2004	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
3/17/2005	0.008	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/13/2005	0.02	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
9/29/2005	0.008	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/13/2005	0.007 - 0.01	Southwest to West	MW-1, MW-2, MW-4, MW-5, MW-6
3/22/2006	0.008	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/15/2006	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6

Note: Monitoring wells were resurveyed on March 13, 2001, and it was discovered that the top-of-casing elevations for MW-2 and MW-3 had been entered in the reverse order when the table was created. This table reflects the corrected top-of-casing elevations, and corresponding groundwater elevations for MW-2 and MW-3. Elevations are relative to mean sea level.

Table 3. Dissolved Oxygen and Indicator Parameters

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date [a]	Dissolved Oxygen (mg/L)	ORP (mV)	pH	Conductivity [b] (uS/cm)	Temperature (^{o}F)
MW-1	9/10/2002	---	---	6.74	502	70.9
	12/11/2002	---	---	6.85	819	65.7
	3/25/2003	0.28	---	7.00	1053	65.2
	6/27/2003	0.28	-108	6.83	839	64.4
	10/1/2003	0.28	-35	7.00	883	65.8
	12/12/2003	---	-54	6.81	1007	66.0
	3/26/2004	---	-64	6.76	1039	64.0
	7/9/2004	0.50	-68	6.70	921	65.1
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.33	-34	6.97	825	66.7
	12/20/04 & 12/21/04*	0.74	-54	6.91	891	66.9
	2/24/2005	---[c]	---	---	---	---
	Biosparge system compressor upgrade on 3/1/05. Air flow rate increased from 3.0 to 6.0 scfm.					
	3/16/05 & 3/17/05*	9.09	4	6.84	835	65.1
	6/9/05 & 6/13/05*	9.03	---	6.86 [e]	723 [e]	68.8 [e]
	9/28/05 & 9/29/05*	8.38	201	7.22	660	68.0
	12/12/05 & 12/13/05*	7.54	58	7.10	857	66.4
	3/21/06 & 3/22/06*	10.50	159	7.46	703	63.7
	6/13/06 & 6/15/06*	12.65	150	7.07	703	64.8
MW-2	9/10/2002	---	---	**Not Sampled**		
	12/11/2002	---	---	**Not Sampled**		
	3/25/2003	0.41	---	6.50	650	66.7
	6/27/2003	0.70	147	6.62	612	65.8
	10/1/2003	0.92	205	6.63	648	67.5
	12/12/2003	---	232	6.63	655	68.2
	3/26/2004	---	250	6.26	612	65.5
	7/9/2004	1.88	222	6.50	578	66.4
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.58	173	6.64	572	68.4
	12/20/04 & 12/21/04*	0.50	228	6.42	587	68.2
	2/24/2005	0.78	---	---	---	---
	Biosparge system compressor upgrade on 3/1/05. Air flow rate increased from 3.0 to 6.0 scfm.					
	3/16/05 & 3/17/05*	0.64	203	6.30	619	66.0
	6/9/05 & 6/13/05*	1.27	---	6.34 [e]	601 [e]	68.3 [e]
	9/28/05 & 9/29/05*	1.33	168	6.70	574	68.2
	12/12/05 & 12/13/05*	2.26	175	6.52	568	67.6
	3/21/06 & 3/22/06*	2.83	124	6.78	540	65.7
	6/13/06 & 6/15/06*	3.50	205	6.59	500	65.1
MW-3	**Well Destroyed**					
MW-4	9/10/2002	---	---	**Not Measured [d]**		
	12/11/2002	---	---	6.69	732	66.3
	3/25/2003	0.27	---	7.00	868	64.7
	6/27/2003	0.20	-94	6.60	820	66.4
	10/1/2003	0.29	-19	6.74	802	69.6
	12/12/2003	---	-533	6.75	826	67.8
	3/26/2004	---	2	6.55	886	64.0
	7/9/2004	3.31	-60	6.60	740	67.5
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.35	-39	7.03	633	71.8
	12/20/04 & 12/21/04*	0.69	-1	7.02	638	69.6
	2/24/2005	0.30	---	---	---	---
	Biosparge system compressor upgrade on 3/1/05. Air flow rate increased from 3.0 to 6.0 scfm.					
	3/16/05 & 3/17/05*	4.55	17	6.77	552	64.8
	6/9/05 & 6/13/05*	6.85	---	6.80 [e]	507 [e]	70.6 [e]
	9/28/05 & 9/29/05*	0.41	43	7.50	514	71.4
	12/12/05 & 12/13/05*	1.64	-27	7.05	659	68.0
	3/21/06 & 3/22/06*	3.15	97	7.08	528	64.6
	6/13/06 & 6/15/06*	3.85	132	6.97	548	66.2

Table 3. Dissolved Oxygen and Indicator Parameters

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date [a]	Dissolved Oxygen (mg/L)	ORP (mV)	pH	Conductivity [b] (uS/cm)	Temperature (^{o}F)
MW-5	9/10/2002	---	---	6.96	659	70.9
	12/11/2002	---	---	6.62	635	66.6
	3/25/2003	0.26	---	7.00	799	64.0
	6/27/2003	0.21	-43	6.57	774	65.3
	10/1/2003	0.30	19	6.67	732	67.8
	12/12/2003	---	31	6.67	735	67.3
	3/26/2004	---	41	6.54	803	62.8
	7/9/2004	0.45	7	6.50	726	65.5
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.27	27	6.65	653	68.5
	12/20/04 & 12/21/04*	0.59	45	6.61	639	66.7
	2/24/2005	0.27	---	---	---	---
	Biosparge system compressor upgrade on 3/1/05. Air flow rate increased from 3.0 to 6.0 scfm.					
	3/16/05 & 3/17/05*	0.60	530	6.56	598	63.1
	6/9/05 & 6/13/05*	0.35	---	6.77 [e]	603 [e]	67.5 [e]
	9/28/05 & 9/29/05*	0.40	16	6.80	530	68.9
	12/12/05 & 12/13/05*	1.77	0	6.78	526	66.6
	3/21/06 & 3/22/06*	2.23	17	6.93	517	62.6
	6/13/06 & 6/15/06*	2.10	26	6.85	507.7	64.9
MW-6	9/10/2002	---	---	6.88	612	69.9
	12/11/2002	---	---	6.44	563	68.2
	3/25/2003	0.28	---	7.00	653	65.5
	6/27/2003	0.39	178	6.61	610	66.9
	10/1/2003	0.58	208	6.69	646	69.4
	12/12/2003	---	263	6.68	661	69.3
	3/26/2004	---	222	6.44	605	64.4
	7/9/2004	0.54	225	6.51	580	67.5
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.56	176	6.57	572	70.2
	12/20/04 & 12/21/04*	3.10	212	6.52	558	69.3
	2/24/2005	3.74	---	---	---	---
	Biosparge system compressor upgrade on 3/1/05. Air flow rate increased from 3.0 to 6.0 scfm.					
	3/16/05 & 3/17/05*	4.70	179	6.43	560	65.3
	6/9/05 & 6/13/05*	5.44	---	6.64 [e]	590 [e]	68.9 [e]
	9/28/05 & 9/29/05*	5.79	175	6.90	525	70.9
	12/12/05 & 12/13/05*	6.38	199	6.74	529	68.5
	3/21/06 & 3/22/06*	5.94	120	6.87	509	64.9
	6/13/06 & 6/15/06*	9.24	200	6.85	481.2	66.4

Notes:

a = Tabulated indicator parameters were the last to be recorded from each well.

b = The conductivity was incorrectly reported for the 9/10/2002, 12/11/2002, and 3/25/2003 reporting periods. The decimal points have been moved to show the correct values.

c = DO was not measured because well was covered by a truck that could not be moved at the time DO was measured.

d = Well de-watered after purging 0.75 gallons. Indicator parameters were not measured.

e = A Hydac meter was used to measure indicator parameters due to the unavailability of the Ultrameter.

* = During this sampling event, DO was measured on the first date while the system was on and the other indicator paramet were measured on the second date during purging activities.

Abbreviations:

mg/L = milligrams per liter

ORP = oxidation/reduction potential

mV = millivolts

uS/cm = microSiemens per centimeter

^{o}F = degrees Fahrenheit

--- = Measurements not taken

scfm = standard cubic foot per minute

Table 4. Analytical Results of Nutrient Compounds

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date	Analytic Method - EPA 300 (IC), SM 4500			
		Nitrate as Nitrogen (NO_3^{-1}-N)	Nitrite as Nitrogen (NO_2^{-1}-N)	Ammonia as Nitrogen (NH_4^{-1}-N)	Phosphate (PO_4)
		mg/L			
MW-1	5/8/2003	**0.99**	NA	NA	<2.0
	7/9/2004	<0.10	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	<0.15	<0.15	**0.37**	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	<0.50	NA	NA	NA
	12/21/2004	<0.10	<0.10	<0.2	<0.50
	3/17/2005	<0.15	<0.15	<0.15	<1.0
	6/13/2005	**1.4**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005[a]	**2.0**	0.0	NA	NA
	9/29/2005	<0.50	<0.5	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**140**	**30**	**0.70**	<2.0
	1/9/2006	**4.4**	<0.10	NA	NA
	3/22/2006	**1.9**	<0.10	<0.2	<0.2
	Fourth Nutrient Injection (3/22/06) performed following sampling event.				
	4/20/2006	**2.2**	<0.10	NA	NA
	6/15/2006	**2.3**	<0.10	<0.2	<0.10
	Fifth Nutrient Injection performed on 6/30/06.				
MW-2	5/8/2003	**6.7**	NA	NA	<2.0
	7/9/2004	**1.4**	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	**1.3**	<0.15	<0.15	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	**5.9**	NA	NA	NA
	12/21/2004	**1.2**	<0.10	<0.2	<0.50
	3/17/2005	**2.0**	<0.15	<0.15	<1.0
	6/13/2005	**1.7**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005[a]	**0.5**	0.0	NA	NA
	9/29/2005	**0.84**	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**3.5**	<0.10	<0.2	<0.2
	3/22/2006	**1.2**	<0.10	<0.2	<0.2
	Fourth Nutrient Injection (3/22/06) performed following sampling event.				
	4/20/2006	NA	NA	NA	NA
	6/15/2006	**1.3**	<0.10	<0.2	<0.10
	Fifth Nutrient Injection performed on 6/30/06.				
	MCLs =	SUM = 10	1.0	NA	NA

Table 4. Analytical Results of Nutrient Compounds

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date	Analytic Method - EPA 300 (IC), SM 4500			
		Nitrate as Nitrogen (NO_3^{-1}-N)	Nitrite as Nitrogen (NO_2^{-1}-N)	Ammonia as Nitrogen (NH_4^{-1}-N)	Phosphate (PO_4)
		mg/L			
MW-4	7/9/2004	<0.10	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	**0.17**	<0.15	<0.15	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	<0.50	NA	NA	NA
	12/21/2004	<0.10	<0.10	<0.2	<0.50
	3/17/2005	<0.15	<0.15	<0.15	<1.0
	6/13/2005	<0.15	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005[a]	**2.0**	0.0	NA	NA
	9/29/2005	<0.50	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**91**	**0.92**	<0.2	<2.0
	1/9/2006	**1.8**	NA	NA	NA
	3/22/2006	**0.37**	<0.10	<0.2	<0.2
	Fourth Nutrient Injection (3/22/06) performed following sampling event.				
	4/20/2006	**2.1**	<0.10	NA	NA
	6/15/2006	**1.1**	<0.10	<0.2	<0.10
	Fifth Nutrient Injection performed on 6/30/06.				
MW-5	7/9/2004	<0.10	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	<0.15	<0.15	<0.15	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	**3.0**	NA	NA	NA
	12/21/2004	<0.10	<0.10	<0.2	<0.50
	3/17/2005	<0.15	<0.15	<0.15	<1.0
	6/13/2005	**0.16**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005[a]	0.0	0.0	NA	NA
	9/29/2005	<0.50	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	<0.50	<0.10	<0.2	<0.2
	1/9/2006	**0.15**	NA	NA	NA
	3/22/2006	<0.10	<0.10	<0.2	<0.2
	Fourth Nutrient Injection (3/22/06) performed following sampling event.				
	4/20/2006	<0.10	<0.10	NA	NA
	6/15/2006	**0.36**	<0.10	<0.2	<0.10
	Fifth Nutrient Injection performed on 6/30/06.				
	MCLs =	SUM = 10	1.0	NA	NA

Table 4. Analytical Results of Nutrient Compounds

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date	Analytic Method - EPA 300 (IC), SM 4500			
		Nitrate as Nitrogen (NO_3^{-1}-N)	Nitrite as Nitrogen (NO_2^{-1}-N)	Ammonia as Nitrogen (NH_4^{-1}-N)	Phosphate (PO_4)
		mg/L			
MW-6	5/8/2003	**5.8**	NA	NA	<2.0
	7/9/2004	**1.4**	<0.10	<0.15	<0.2
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	**1.2**	<0.15	**0.30**	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	**5.7**	NA	NA	NA
	12/21/2004	**1.2**	<0.10	<0.2	<0.50
	3/17/2005	**1.8**	<0.15	<0.15	<1.0
	6/13/2005	**1.6**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005[a]	**2.0**	0.0	NA	NA
	9/29/2005	**1.0**	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**5.1**	<0.10	<0.2	<0.2
	3/22/2006	**1.4**	<0.10	<0.2	<0.2
	Fourth Nutrient Injection (3/22/06) performed following sampling event.				
	4/20/2006	**1.7**	<0.10	NA	NA
	6/15/2006	**1.5**	<0.10	<0.2	<0.10
	Fifth Nutrient Injection performed on 6/30/06.				
	MCLs =	SUM = 10	1.0	NA	NA

Abbreviations:

mg/L = milligrams per liter

NA = Not analyzed

a = Concentrations of Nitrate and Nitrite were analyzed using Nitrate/Nitrite test strips in the field.

MCL = California Maximum Contaminant Levels

SUM = Sum of Nitrate as Nitrogen and Nitrite as Nitrogen

Note: 9/21/04 data is considered baseline for pre-nutrient injection. The first nutrient injection was completed 9/22/04, after 3rd quarter sampling.

Table 5. Analytical Results of Groundwater Samples

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date Sampled	Analytic Methods	TPH-G	TPH-D	B	T	E	X	MTBE	DIPE	ETBE	TAME	TBA	EDC / EDB
			ug/L											
MW-1	2/2/95	8015M / 8020	**32,000**	**2600** [d]	**3,600**	**6,600**	**1,300**	**6,100**	NA	ND	ND	ND	ND	NA
	4/6/95	8015M / 8020	**10,000**	NA	**1,400**	**1,500**	**560**	**1,600**	NA	ND	ND	ND	ND	NA
	3/19/1998	5030/602/8260	**30,000**	**1,400**	**1,300**	**1,000**	**770**	**2,900**	**360**	ND	ND	ND	ND	NA
	9/9/1999	5030A/8260B/8015M	**19,000**	**1,600**	**570**	**220**	**360**	**1,100**	**140**	ND	ND	ND	ND	NA
	12/15/1999	5030A/8260B/8015M	**13,000**	**2,600**	**1,400**	**410**	**1,400**	**3,400**	**280**	ND	ND	ND	ND	NA
	3/15/2000	5030A/8260B/8015M	**23,000**	**1,600**	**920**	**360**	**970**	**2,600**	**120**	ND	ND	ND	ND	<50
	7/14/2000	5030A/8260B/8015M	**22,000**	**880**	**1,300**	**240**	**1,400**	**3,100**	**200**	ND	ND	ND	ND	<50
	3/6/2001	5030A/8260B/8015M	**25,000**	**2,900**	**1,700**	**310**	**2,200**	**4,400**	**260**	ND	ND	ND	ND	<0.50
	6/6/2001	5030A/8260B/8015M	**16,000**	**470** [c]	**980**	**140**	**1,300**	**1,800**	**200**	ND	ND	ND	ND	<50
	9/12/2001	5030A/8260B/8015M	**17,000**	**1,100** [c]	**730**	**96**	**980**	**1,800**	**240**	ND	ND	ND	**31**	<0.50
	12/13/2001	5030A/8260B/8015M	**29,000**	**4,100** [c]	**1,400**	**560**	**1,900**	**4,000**	**120**	ND	ND	ND	ND	<5.0
	3/21/2002	5030A/8260B/8015M	**6,400**	**1,700** [c]	**400**	**200**	**740**	**1,440**	**28**	<10	<10	<10	<10	<10
	6/14/2002	5030A/8260B/8015M	**12,000**	**2000** [a]	**370**	**150**	**860**	**1,700**	**45**	<10	<10	<10	<200	NA
	9/10/2002	5030A/8260B/8015M	**11,000**	**3800** [a]	**140**	**85**	**500**	**940**	**38**	<5.0	<5.0	<5.0	<100	NA
	12/11/2002	5030/8015M/8260B	**9,100**	**3200** [a]	**280**	**120**	**600**	**840**	**64**	<10	<10	<10	<250	NA
	3/25/2003	5030/8015M/8260B	**8,500**	NA	**160**	**210**	**860**	**1,780**	**33**	<10	<10	<10	<250	<10
	5/8/2003	5030/8015M/8260B	**9,900**	NA	**250**	**450**	**790**	**2,020**	<10	<10	<10	<10	<250	<10
	6/27/2003	5030/8015M/8260B	**5,800**	NA	**140**	**220**	**580**	**1,350**	**19**	<10	<10	<10	<25	<10
	10/1/2003	5030/8015M/8260B	**8,100**	NA	**180**	**330**	**1,100**	**2,700**	**36**	<10	<10	<10	<250	<10
	12/12/2003	5030/8015M/8260B	**23,000**	NA	**230**	**380**	**1,800**	**5,290**	**33**	<20	<20	<20	<500	<20
	3/26/2004 [t]	5030/8015M/8260B	**10,000**	**1,800** [a]	**92**	**140**	**900**	**2,200**	**20**	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	**4,900**	**1,600** [a]	**40**	**38**	**370**	**880**	**22**	<10	<10	<10	<250	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	**4,300**	**420** [a]	**16**	**13**	**150**	**281**	<10	<10	<10	<10	<250	NA
	12/21/2004	5030/8015M/8260B	**4,500**	**1,200** [a]	**11**	**11**	**37**	**167**	<10	<10	<10	<10	<250	NA
	3/17/2005	5030/8015M/8260B	**1,200**	**290** [a]	**1.3**	**1.6**	**25**	**66**	**1.4**	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	**470**	**130** [a]	**1.2**	<1.0	**22**	**32.3**	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	**280**	<50	<1.0	<1.0	**10**	**7.9**	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	**170**	<50	<1.0	<1.0	**4.4**	**5.8**	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/22/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA
	6/15/2006	5030/8015M/8260B	**98**	<50	<1.0	<1.0	**2.5**	**1.7**	<1.0	<1.0	<1.0	<1.0	<12	NA
MW-2	2/2/95 [a]	8015M / 8020	<50.0	**110** [e]	<0.5	**1.2**	<0.5	<0.5	NA	ND	ND	ND	ND	NA
	3/19/1995	5030/602/8260	<50.0	<50	<0.3	<0.3	<0.5	<0.5	NA	ND	ND	ND	ND	NA
	9/9/1999	5030A/8260B/8015M	<50.0	<50	<0.3	<0.3	<0.5	<0.5	ND	ND	ND	ND	ND	NA
	12/15/1999	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	NA
	3/15/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	7/14/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	3/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	6/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	9/12/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	12/13/2001	Not Sampled												
	3/21/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	Not Sampled												
	9/10/2002	Not Sampled												
	3/25/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	<50	NA	<1.0	**2.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [t]	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	**2.1**	**4.1**	<1.0	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/22/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA
	6/15/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<12	NA
Water Quality Objectives in ug/L			**<50**	**<50**	**<1**	**<42**	**<29**	**<17**	**<5**	**None**	**None**	**None**	**<12**	**<0.5**

Table 5. Analytical Results of Groundwater Samples

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date Sampled	Analytic Methods	TPH-G	TPH-D	B	T	E	X	MTBE	DIPE	ETBE	TAME	TBA	EDC / EDB
			ug/L											
MW-3	2/2/95 [a]	8015M / 8020	<50.0	**460**	**5.4**	**12**	**1.3**	**12.0**	NA	NA	NA	NA	NA	NA
	3/19/1995	5030/602/8260	<50.0	<50	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	9/9/1999	5030A/8260B/8015M	<50.0	<50	<0.3	<0.3	<0.5	<0.5	ND	ND	ND	ND	ND	NA
	12/15/1999	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	NA
	3/15/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	7/14/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	3/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	6/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	9/12/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	12/13/2001	Not Sampled												
	1/24/2002	Well Destroyed												
MW-4	3/21/2002	5030A/8260B/8015M	**420**	**120** [c]	**4.1**	<1.0	**5.4**	<1.0	**43**	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	5030A/8260B/8015M	**550**	**110** [a]	<1.0	<1.0	**3.4**	<1.0	**33**	<1.0	<1.0	<1.0	<25	NA
	9/10/2002	5030A/8260B/8015M	**1,300**	**200** [a]	**6.6**	<1.0	**38**	<1.0	**27**	<1.0	<1.0	<1.0	<25	NA
	12/11/2002	5030/8015M/8260B	**510**	**230** [a]	**2.1**	<1.0	**13**	<1.0	**28**	<1.0	<1.0	<1.0	<25	NA
	3/25/2003	5030/8015M/8260B	**410**	NA	<1.0	<1.0	**1.7**	<1.0	**24**	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	**410**	NA	<1.0	<1.0	**1.5**	<1.0	**9.8**	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	**350**	NA	<1.0	<1.0	<1.0	<1.0	**9.5**	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	**490**	NA	<1.0	<1.0	<1.0	<1.0	**11**	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [t]	5030/8015M/8260B	**290**	<50	<1.0	<1.0	<1.0	<1.0	**9.0**	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	**870**	**120** [a]	**3.5**	<1.0	**2.3**	**10.3**	**6.4**	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	**650**	**91** [a]	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	**600**	**75** [a]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	**130**	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	**180**	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/22/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA
	6/15/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<12	NA
MW-5	3/21/2002	5030A/8260B/8015M	**400**	<50	<1.0	<1.0	<1.0	<1.0	**32**	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	**31**	<1.0	<1.0	<1.0	<25	NA
	9/10/2002	5030A/8260B/8015M	**350**	<50	<1.0	<1.0	<1.0	<1.0	**11**	<1.0	<1.0	<1.0	<25	NA
	12/11/2002	5030/8015M/8260B	**390**	<50	<1.0	<1.0	<1.0	<1.0	**21**	<1.0	<1.0	<1.0	<25	NA
	3/25/2003	5030/8015M/8260B	**380**	NA	<1.0	<1.0	<1.0	<1.0	**21**	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	**290**	NA	<1.0	<1.0	<1.0	<1.0	**11**	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	**260**	NA	<1.0	<1.0	<1.0	<1.0	**5.9**	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	**210**	NA	<1.0	<1.0	<1.0	<1.0	**6.5**	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [t]	5030/8015M/8260B	**270**	<50	<1.0	<1.0	<1.0	<1.0	**9.9**	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	**280**	<50	<1.0	<1.0	<1.0	<1.0	**7.1**	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	**230**	<50	<1.0	<1.0	<1.0	<1.0	**3.7**	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	**210**	<50	<1.0	<1.0	<1.0	<1.0	**3.4**	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	**200**	<50	<1.0	<1.0	<1.0	<1.0	**4.4**	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	**160**	<50	<1.0	<1.0	<1.0	<1.0	**2.0**	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	**200**	<50	<1.0	<1.0	<1.0	**1.5**	**1.4**	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	**240**	<50	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<25	NA
	3/22/2006	5030/8015M/8260B	**190**	<50	<1.0	<1.0	<1.0	<1.0	**2.0**	NA	NA	NA	NA	NA
	6/15/2006	5030/8015M/8260B	**120**	<50	<1.0	<1.0	<1.0	<1.0	**2.2**	<1.0	<1.0	<1.0	<12	NA
Water Quality Objectives in ug/L			**<50**	**<50**	**<1**	**<42**	**<29**	**<17**	**<5**	**None**	**None**	**None**	**<12**	**<0.5**

Table 5. Analytical Results of Groundwater Samples

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date Sampled	Analytic Methods	TPH-G	TPH-D	B	T	E	X	MTBE	DIPE	ETBE	TAME	TBA	EDC / EDB
			ug/L											
MW-6	3/21/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/10/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/11/2002	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/25/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	**260**	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [f]	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/22/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA	NA	NA
	6/15/2006	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<12	NA
SP-1	6/1/2004	EPA 5030/8015M/8260B	<50	NA	<1.0 [g]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
SP-2	6/1/2004	EPA 5030/8015M/8260B	<50	NA	<1.0 [g]	<1.0	<1.0	<1.0	**5.7**	<1.0	<1.0	<1.0	<25	<1.0
SP-3	6/1/2004	EPA 5030/8015M/8260B	**4,100**	NA	<5.0	<5.0	**11**	**240**	<5.0	<5.0	<5.0	<5.0	<100	<5.0
SP-4	6/1/2004	EPA 5030/8015M/8260B	**3,600**	NA	**15**	<5.0	**81**	**127**	**10**	<1.0	<1.0	<1.0	<25	<5.0
SP-5	6/1/2004	EPA 5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	**5.1**	<1.0	<1.0	<1.0	<25	<1.0
Trip Blank	3/19/1998	5030 / 602	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	9/9/1999	5030A / 8020	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	12/15/1999	8260B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/15/2000	5030A / 8020	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	7/14/2000	5030A / 8020	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	3/6/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	6/6/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	9/12/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	12/13/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	3/21/2002	8260	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	9/9/2002	8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	12/11/2002	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5	NA	NA	NA	NA	NA
	3/25/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	6/27/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	10/1/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	12/12/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	3/26/2004	5030/8015M/8260B	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
Water Quality Objectives in ug/L			**<50**	**<50**	**<1**	**<42**	**<29**	**<17**	**<5**	**None**	**None**	**None**	**<12**	**<0.5**

Notes: a = Sampled by Sierra Environmenl Services

b = Laboratory reports the positive result appears to be both a heavier and lighter hydrocarbon than diesel.

c = The Laboratory reports that results in the diesel range are primarily due to overlap from a gasoline range product.

d = The sample does not exhibit a chromatographic pattern characteristic of diesel. Higher boiling point components of weathered gasoline are present.

e = The laboratory reports the positive result appears to be a heavier hydrocarbon than diesel.

f = 3/26/04 samples were analyzed for TPH-MO by 8015M. Results were ND<200 ug/L.

g = Tetrahydrofuran (THF) was detected and is the primary ingredient in PVC pipe glue and consequently may not be a persistent contaminant.

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline
TPH-D = Total petroleum hydrocarbons as diesel
B = Benzene
T = Toluene
E = Ethyl benzene
X = Total xylenes
EDC = 1,2-dichloroethane
EDB = 1,2-dibromoethane
NA = Not analyzed
ND = Not detected above laboratory detection limits

The 5 Oxygenates Include:

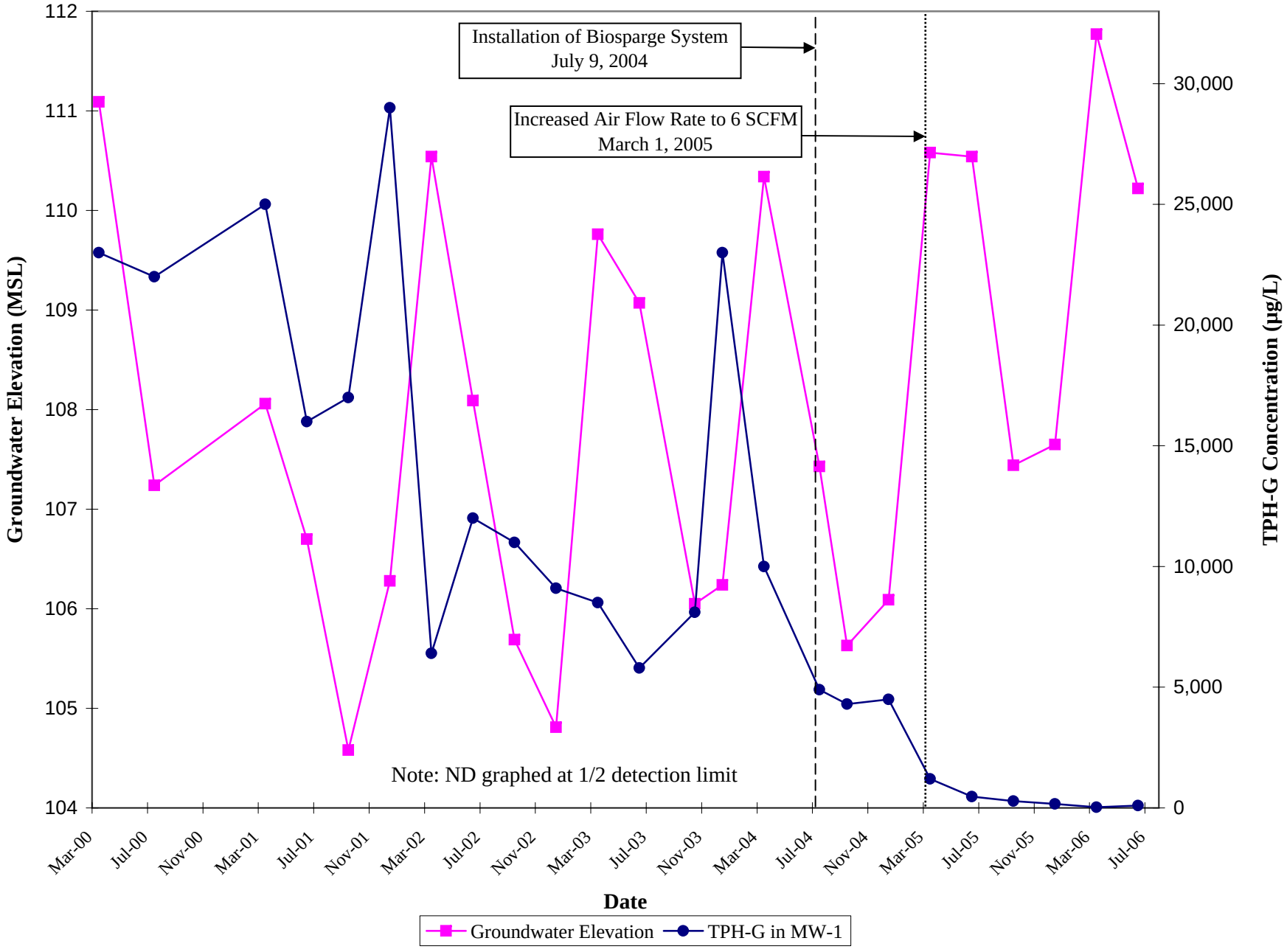
MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = Tert-amyl methyl ether
TBA = Tert-butyl alcohol

Analytic Methods:

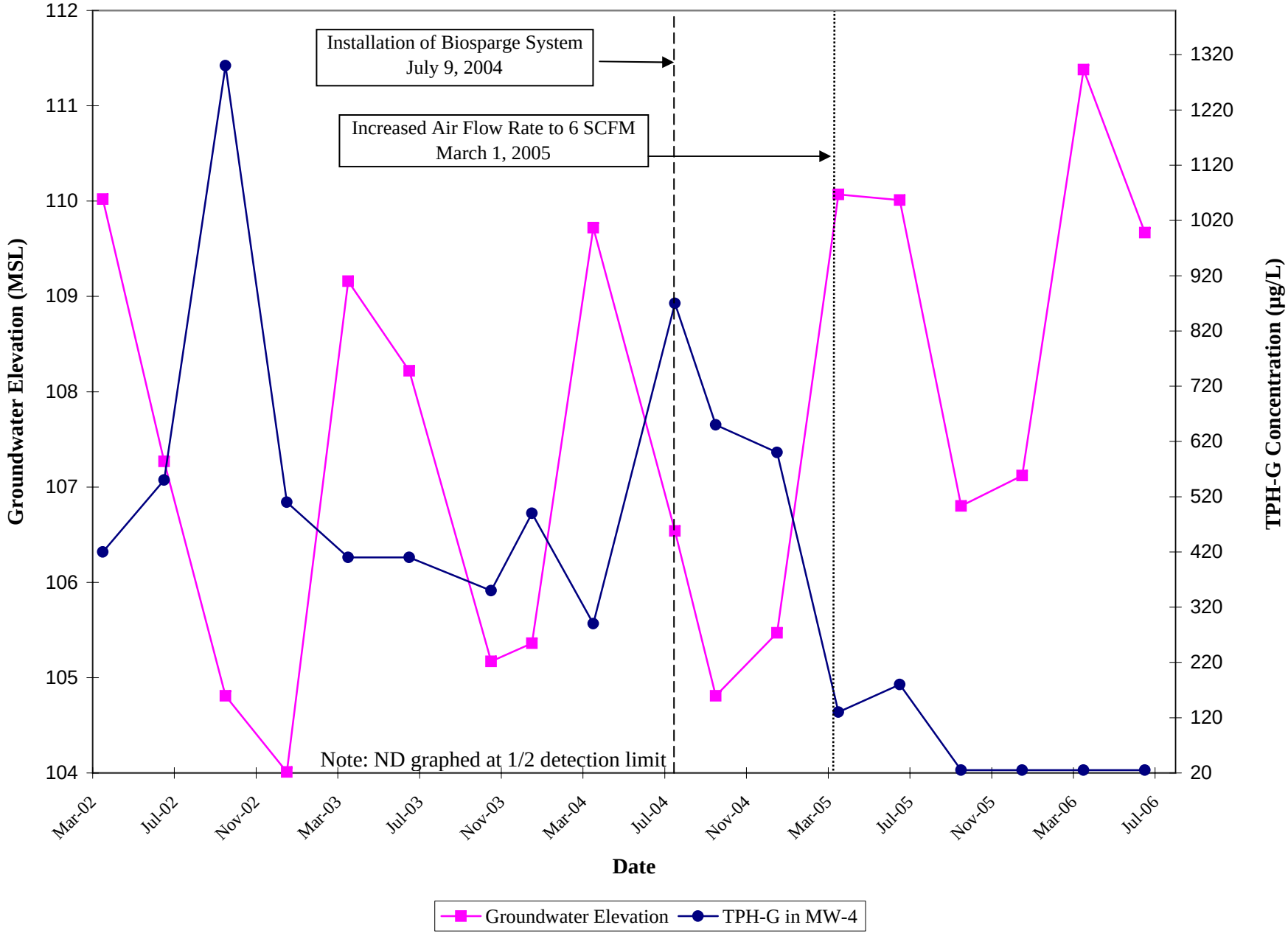
5030 = EPA Method GCFID/5030 for TPH-G
602 = EPA Method 602 for BTEX
8020 = EPA Method for MTBE
8260B = EPA Method 8260 for BTEX / Oxygenates
8015M = EPA method 8015M for Diesel

Graphs

Graph 1 - TPH-G Concentrations vs. Groundwater Elevations Over Time in MW-1



Graph 2 - TPH-G Concentrations vs. Groundwater Elevations Over Time in MW- 4



Appendix A
Site-Specific Sampling Procedures

WINZLER & KELLY CONSULTING ENGINEERS

Site-Specific Groundwater Sampling Procedures
Mani Site
200 Talmadge Drive
Santa Rosa, California
June 13 and 15, 2006

1. Objective

Collect representative water level data and groundwater samples.

2. Background

Based on the analytical results of the previous sampling, field work proceeded from the monitoring wells in which the samples collected had the lowest concentrations of constituents to the wells that had the highest concentrations of constituents.

Water levels were collected to determine the direction and gradient of groundwater flow. Representative groundwater samples from the water-bearing zone were obtained using disposable polyethylene bailers following purging.

3. Personnel Required and Responsibilities

Winzler & Kelly Technicians: Pon Xayasaeng and Lenny Laskowsky performed groundwater monitoring and sampling activities in accordance with the procedures outlined below.

4. Procedures

4a. Biosparge System Shutdown and DO Concentrations, June 13, 2006

- The membrane on the YSI Model 55 DO meter was checked for the presence of bubbles and wrinkles, neither of which was observed.
- The meter was calibrated in the field prior to collecting measurements.
- Using the calibrated YSI Model 55 DO Meter, DO concentrations were measured in each monitoring well while the biosparge system was operating.
- Following DO measurements, the biosparge system was shutdown to allow the groundwater to equilibrate to atmospheric pressure.

4b. Decontamination Procedures, June 15, 2006

- Using Alconox soap and potable water, each equipment and instrument were decontaminated upon arriving at the site.
- Each equipment and instrument was decontaminated after use in each well.
- Each equipment and instrument was decontaminated after field activities had been completed.

- Nitrile gloves were worn by sampler at all times and changed after handling equipment and instruments.

4c. Calibration Procedures, June 15, 2006

- The Ultrameter was calibrated for conductivity and pH. Temperature calibration is not necessary in the Ultrameter.
- Conductivity was calibrated using KCl-7000 standard solution within its expiration date.
- The calibration for pH included "zeroing" the Ultrameter with a pH 7 buffer solution followed by adjusting the gain with acid and base buffers (4.00 and 10.00). All buffer solutions were within their expiration date.

4c. Groundwater Elevations, March 21 and 22, 2006

- On June 13, 2006, monitoring wells were opened; expandable caps removed, and allowed to equilibrate for at least 20 minutes.
- A water level meter was used to measure the depth-to-groundwater in each monitoring well while the biosparge system was on.
- On June 15, 2006, monitoring wells were opened; expandable caps removed, and allowed to equilibrate for at least 20 minutes.
- A water level meter was used to measure the depth-to-groundwater in each monitoring well with the biosparge system turned off.
- Recorded depth, time, and visual observations regarding well access, condition, security, etc. on water level data sheet.

4d. Purging, June 15, 2006

- The volume of standing water in each monitoring well was calculated using the diameter of the well, the measured depth-to-water, and the depth-to-bottom. The volume was recorded on the Well Sampling Data Sheet for each well.
- Monitoring wells were purged using a 12-volt DC 1.5-inch electric submersible pump.
- Field parameters (pH, conductivity, and temperature) were obtained with the Ultrameter and visual observations of color/odor/turbidity at each well casing interval throughout the purging process.
- The time, readings, and visual comments were recorded on the Well Sampling Data Sheet.
- Each well was purged until field parameters stabilized, not exceeding 7 casing volumes, or until the well de-watered.
- The electric submersible pump was decontaminated after each use.
- All excess water was transferred to 55-gallon drums labeled and secured on site.

4e. Groundwater Sample Collection, June 15, 2006

- Groundwater samples were collected by lowering previously unused, disposable, polyethylene, bottom-filling bailers into the well once the water level had recharged to at least 80%.
- When completely full, the bailer was carefully retracted from the well and the

groundwater was transferred from the bailers to the appropriate certified clean sampling containers.

- Groundwater transferred into 40-ml glass vials were preserved with HCl.
- Upon filling, each vial was immediately capped. The vial was checked for air bubbles by inverting and gently tapping the vial.
- All sample containers were labeled with the following information:
  Sample ID Date and Time Sample Collected
  Location Sampler's Initials
- Sample information was documented on a chain-of-custody form.
- All sample containers were placed in an ice chest chilled with ice.
- Upon completion of the sampling activities, each well was closed and secured by replacing the well cap and securing the lock.

5. Equipment Used:

- Disposable gloves
- Potable water
- Alconox soap
- Containers to hold rinsate water
- Scrub brushes
- Tools to open wells
- Keys to wells
- Water Level Data Form/pencil
- Well Sampling Data Sheet
- Groundwater Sampling Log form
- Water level meter
- 12-volt DC 1.5-inch electric submersible pump
- UltraMeter
- YSI Model 55 DO meter
- Containers to hold extracted water (as required)
- Disposable bailers (previously unused)
- Monofilament nylon line (50 lb test)
- Scissors
- Laboratory supplied sample containers (preserved, as required)
- Sample labels
- Ice chest with ice
- Labels/indelible marker
- Trash bags
- 55-gallon drums
- Ziploc bags
- Portable 12-V battery

Appendix B
Well Sampling Data Sheets

WINZLER & KELLY
CONSULTING ENGINEERS

WATER LEVEL MEASUREMENT DATA SHEET

PROJECT NAME: Mani

TODAY'S DATE: 6/13/06 & 6/15/06 ~~6/14/06~~

PROJECT NUMBER: 023430500.32002

FIELD PERSONNEL: Lenny / Pon

WELL NUMBER	OPEN WELL Time	INITIAL WATER LEVEL System On 6/13/06 Time	INITIAL WATER LEVEL System On 6/13/06 Depth to Water (ft. bgs)	FINAL WATER LEVEL System Off 6/14/06 Time	FINAL WATER LEVEL System Off 6/14/06 Depth to Water (ft. bgs)	D.O. (mg/L) ~~COMMENTS~~ System On 6/13/06
				open		
MW-2	12:33	12:53	9.77	6/13/06 8:46	9.68	3.50
MW-6	12:39	12:58	7.93	8:49	7.85	9.24
MW-4	12:37	1:00	8.38	8:51	8.25	3.85
MW-1	12:43	1:02	8.64	8:54	8.47	12.65
MW-5	12:45	1:04	8.80	9:01	8.73	2.10

Weather Conditions Today: Need 1 drum, System Shut off at 1:00

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET 6/15/06

PROJECT NAME: Mani Site
PROJECT DATE: ~~6/14/06~~

PROJECT NUMBER: 0234305001.32002
SAMPLER: Lenny Laskowsky

WELL DESIGNATION: MW- 1
SAMPLE NUMBER: MW- 1

CONDITION OF WELL HEAD / VAULT / CAP & LOCK

A. TOP OF CASING ELEVATION: _____

B. DEPTH TO GROUNDWATER (initial): _____

C. DEPTH OF WELL: 25' MEASURED: 8.47

D. HEIGHT OF WATER COLUMN (C-B): _____

E. GROUNDWATER ELEVATION (A-B): _____

CASTING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (25-8.47)(.163) = 2.7

Volume (V) of 2" well – 0.163 gal/ft
Volume (V) of 4" well – 0.653 gal/ft

ODOR No SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE :
POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	ORP (mV)	TURBIDITY (NTU)
	2.7	1	7.11	19.3	767.8	182	Slight silt
	5.4	2	7.11	18.4	718.8	166	Clear
	8.1	3	7.07	18.2	702.5	150	Clear

RECHARGE RATE (qualitative):
SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER X

SAMPLES COLLECTED:
PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOOTILE WITH PERSERVATIVE FOR METALS:
FILTERED: _____ UNFILTERED: _____
OTHER: _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET 6/15/06

PROJECT NAME: Mani Site
PROJECT DATE: ~~6/14/06~~

PROJECT NUMBER: 0234305001.32002
SAMPLER: Lenny Laskowsky

WELL DESIGNATION: MW- 2
SAMPLE NUMBER: MW- 2

CONDITION OF WELL HEAD / VAULT / CAP & LOCK

A. TOP OF CASING ELEVATION: _____

B. DEPTH TO GROUNDWATER (initial): _____

C. DEPTH OF WELL: 25' MEASURED: 9.68

D. HEIGHT OF WATER COLUMN (C-B): _____

E. GROUNDWATER ELEVATION (A-B): _____

CASTING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (25-9.68)(.163) = 2.5

Volume (V) of 2" well – 0.163 gal/ft
Volume (V) of 4" well – 0.653 gal/ft

ODOR Nr SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE : POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	ORP (mV)	TURBIDITY (NTU)
	2.5	1	6.49	19.4	765.0	222	Clear
	5.0	2	6.58	18.6	506.1	212	Clear
	7.5	3	6.59	18.4	499.7	205	Clear

RECHARGE RATE (qualitative):
SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER X

SAMPLES COLLECTED:
PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOOTILE WITH PERSERVATIVE FOR METALS:
FILTERED: _____ UNFILTERED: _____
OTHER: _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET 6/15/06

PROJECT NAME: Mani Site

PROJECT NUMBER: 0234305001.32002

WELL DESIGNATION: MW-4

PROJECT DATE: ~~6/14/06~~

SAMPLER: Lenny Laskowsky

SAMPLE NUMBER: MW-4

CONDITION OF WELL HEAD / VAULT / CAP & LOCK

A. TOP OF CASING ELEVATION: _____

B. DEPTH TO GROUNDWATER (initial): _____

C. DEPTH OF WELL: 20' MEASURED: _____

D. HEIGHT OF WATER COLUMN (C-B): _____

E. GROUNDWATER ELEVATION (A-B): _____

CASTING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (illegible)(7.25)(.163) = 1.92

Volume (V) of 2" well – 0.163 gal/ft
Volume (V) of 4" well – 0.653 gal/ft

ODOR No SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE : POLY BAILER _____ STAINLESS BAILER _____

ELECTRIC X OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	ORP (mV)	TURBIDITY (NTU)
	1.92	1	6.87	19.8	565.2	173	Clear
	3.84	2	6.91	19.1	565.4	148	Clear
	5.76	3	6.97	19.0	547.7	132	Clear

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER X

SAMPLES COLLECTED:

PRESERVED VOA'S _____ UNPRESERVED VOA'S _____

PRESERVED LITERS _____ UNPRESERVED LITERS _____

500 ml PLASTIC BOOTILE WITH PERSERVATIVE FOR METALS:

FILTERED: _____ UNFILTERED: _____

OTHER: _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET 6/15/06

PROJECT NAME: Mani Site
PROJECT DATE: ~~6/14/06~~

PROJECT NUMBER: 0234305001.32002
SAMPLER: Lenny Laskowsky

WELL DESIGNATION: MW- 5
SAMPLE NUMBER: MW- 5

CONDITION OF WELL HEAD / VAULT / CAP & LOCK

A. TOP OF CASING ELEVATION: _____
B. DEPTH TO GROUNDWATER (initial): _____
C. DEPTH OF WELL: 20' MEASURED: 6.73
D. HEIGHT OF WATER COLUMN (C-B): _____
E. GROUNDWATER ELEVATION (A-B): _____

CASTING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (20 − 6.73)(.163) ≈ 1.84

Volume (V) of 2" well – 0.163 gal/ft
Volume (V) of 4" well – 0.653 gal/ft

ODOR No SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE : POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	ORP (mV)	TURBIDITY (NTU)
	1.64	1	7.15	21.9	588.0	107	Clear
	3.68	2	6.93	18.7	515.9	55	Clear
	5.52	3	6.85	18.3	507.7	26	Clear

RECHARGE RATE (qualitative):
SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER X

SAMPLES COLLECTED:
PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOOTILE WITH PERSERVATIVE FOR METALS:
FILTERED: _____ UNFILTERED: _____
OTHER: _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET 6/15/06

PROJECT NAME: Mani Site

PROJECT NUMBER: 0234305001.32002

WELL DESIGNATION: MW- 6

PROJECT DATE: ~~6/14/06~~

SAMPLER: Lenny Laskowsky

SAMPLE NUMBER: MW- 6

CONDITION OF WELL HEAD / VAULT / CAP & LOCK

A. TOP OF CASING ELEVATION: _____

B. DEPTH TO GROUNDWATER (initial): _____

C. DEPTH OF WELL: 20' MEASURED: _____

D. HEIGHT OF WATER COLUMN (C-B): _____

E. GROUNDWATER ELEVATION (A-B): _____

CASTING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (20 − 7.85)(.163) = 1.98

Volume (V) of 2" well – 0.163 gal/ft
Volume (V) of 4" well – 0.653 gal/ft

ODOR No SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE : POLY BAILER _____ STAINLESS BAILER _____

ELECTRIC X OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMP	CONDUCTIVITY (µMHOS/CM)	ORP (mV)	TURBIDITY (NTU)
	1.98	1	6.85	19.9	473.5	226	Clear
	3.96	2	6.83	19.3	485.9	216	Clear
	5.94	3	6.85	19.1	481.2	200	Clear

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER X

SAMPLES COLLECTED:

PRESERVED VOA'S _____ UNPRESERVED VOA'S _____

PRESERVED LITERS _____ UNPRESERVED LITERS _____

500 ml PLASTIC BOOTILE WITH PERSERVATIVE FOR METALS:

FILTERED: _____ UNFILTERED: _____

OTHER: _____

COMMENTS: _____

Appendix C
Analytical Laboratory Reports

Analytical Sciences

Report Date: July 07, 2006

Laboratory Report

Pon Xayasaeng
Winzler & Kelly Consulting Engineers
495 Tesconi Circle, Suite 9
Santa Rosa, CA 95401

Project Name: **Mani** **0234305001.32002**

Lab Project: **6061603**

This 20 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Laboratory Director

P.O. Box 750336
Petaluma, CA 94975-0336
Telephone: (707) 769-3128

110 Liberty Street
Petaluma, CA 94952

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-01	**MW-2**	Gasoline	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/19/06	QC Batch: B001171
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-02	**MW-6**	Gasoline	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/19/06	QC Batch: B001171
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-03	**MW-4**	Gasoline	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/19/06	QC Batch: B001171
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-04	**MW-1**	Gasoline	98	50

Date Sampled:	06/15/06	Date Analyzed:	06/20/06	QC Batch: B001171
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-05	**MW-5**	Gasoline	120	50

Date Sampled:	06/15/06	Date Analyzed:	06/20/06	QC Batch: B001171
Date Received:	06/16/06	Method:	EPA 8015M	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-01	**MW-2**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	12
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (µg/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	22.4	112	70-130
Toluene-d8	22.5	112	70-130
4-Bromofluorobenzene	15.8	79	70-130

Date Sampled:	06/15/06	Date Analyzed:	06/21/06	QC Batch: B001183
Date Received:	06/16/06	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-02	**MW-6**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	12
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (µg/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	22.6	113	70-130
Toluene-d8	22.8	114	70-130
4-Bromofluorobenzene	15.6	78	70-130

Date Sampled:	06/15/06	Date Analyzed:	06/21/06	QC Batch: B001183
Date Received:	06/16/06	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-03	**MW-4**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	12
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (µg/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	22.5	112	70-130
Toluene-d8	22.7	114	70-130
4-Bromofluorobenzene	15.7	78	70-130

Date Sampled:	06/15/06	Date Analyzed:	06/21/06	QC Batch: B001183
Date Received:	06/16/06	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-04	**MW-1**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	2.5	1.0
		m,p-Xylene	1.7	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	12
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (µg/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	22.6	113	70-130
Toluene-d8	23.0	115	70-130
4-Bromofluorobenzene	15.9	80	70-130

Date Sampled:	06/15/06	Date Analyzed:	06/21/06	QC Batch: B001183
Date Received:	06/16/06	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-05	**MW-5**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	12
		Methyl tert-Butyl Ether (MTBE)	2.2	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (µg/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	22.2	111	70-130
Toluene-d8	22.7	114	70-130
4-Bromofluorobenzene	15.7	78	70-130

Date Sampled:	06/15/06	Date Analyzed:	06/21/06	QC Batch: B001183
Date Received:	06/16/06	Method:	EPA 8260B	

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-01	**MW-2**	Diesel	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/24/06	QC Batch: B001178
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-02	**MW-6**	Diesel	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/24/06	QC Batch: B001178
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-03	**MW-4**	Diesel	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/24/06	QC Batch: B001178
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-04	**MW-1**	Diesel	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/24/06	QC Batch: B001178
Date Received:	06/16/06	Method:	EPA 8015M	

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (µg/L)	RDL (µg/L)
6061603-05	**MW-5**	Diesel	ND	50

Date Sampled:	06/15/06	Date Analyzed:	06/24/06	QC Batch: B001178
Date Received:	06/16/06	Method:	EPA 8015M	

Nitrate as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-01	**MW-2**	Nitrate as N	1.3	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrate as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-02	**MW-6**	Nitrate as N	1.5	0.50

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrate as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-03	**MW-4**	Nitrate as N	1.1	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrate as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-04	**MW-1**	Nitrate as N	2.3	0.50

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrate as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-05	**MW-5**	Nitrate as N	0.36	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrite as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-01	**MW-2**	Nitrite as N	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrite as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-02	**MW-6**	Nitrite as N	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrite as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-03	**MW-4**	Nitrite as N	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrite as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-04	**MW-1**	Nitrite as N	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Nitrite as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-05	**MW-5**	Nitrite as N	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-01	**MW-2**	Ammonia as N	ND	0.2

Date Sampled:	06/15/06	Date Analyzed:	06/28/06	QC Batch: B001214
Date Received:	06/16/06	Method:	EPA 350.3	

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-02	**MW-6**	Ammonia as N	ND	0.2

Date Sampled:	06/15/06	Date Analyzed:	06/28/06	QC Batch: B001214
Date Received:	06/16/06	Method:	EPA 350.3	

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-03	**MW-4**	Ammonia as N	ND	0.2

Date Sampled:	06/15/06	Date Analyzed:	06/28/06	QC Batch: B001214
Date Received:	06/16/06	Method:	EPA 350.3	

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-04	**MW-1**	Ammonia as N	ND	0.2

Date Sampled:	06/15/06	Date Analyzed:	06/28/06	QC Batch: B001214
Date Received:	06/16/06	Method:	EPA 350.3	

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-05	**MW-5**	Ammonia as N	ND	0.2

Date Sampled:	06/15/06	Date Analyzed:	06/28/06	QC Batch: B001214
Date Received:	06/16/06	Method:	EPA 350.3	

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-01	**MW-2**	Phosphate	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-02	**MW-6**	Phosphate	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-03	**MW-4**	Phosphate	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-04	**MW-1**	Phosphate	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch: B001153
Date Received:	06/16/06	Method:	EPA 300.0	

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
6061603-05	**MW-5**	Phosphate	ND	0.10

Date Sampled:	06/15/06	Date Analyzed:	06/16/06	QC Batch:	B001153
Date Received:	06/16/06	Method:	EPA 300.0		

Quality Assurance Report

TPH Gasoline in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001171 - EPA 5030 GC										
Blank (B001171-BLK1)				Prepared & Analyzed: 06/19/06						
Gasoline	ND	50	µg/L							
Matrix Spike (B001171-MS1)		**Source: 6061603-01**		Prepared & Analyzed: 06/19/06						
Benzene	9.25	0.50	µg/L	10.0	ND	92	70-130			
Toluene	9.61	0.50	µg/L	10.0	ND	96	70-130			
Ethylbenzene	9.54	0.50	µg/L	10.0	ND	95	70-130			
Xylenes	29.7	1.5	µg/L	30.0	ND	99	70-130			
Matrix Spike Dup (B001171-MSD1)		**Source: 6061603-01**		Prepared: 06/19/06 Analyzed: 06/22/06						
Benzene	9.38	0.50	µg/L	10.0	ND	94	70-130	2	20	
Toluene	9.67	0.50	µg/L	10.0	ND	97	70-130	1	20	
Ethylbenzene	9.39	0.50	µg/L	10.0	ND	94	70-130	1	20	
Xylenes	29.4	1.5	µg/L	30.0	ND	98	70-130	1	20	

Volatile Hydrocarbons by GC/MS in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001183 - EPA 5030 GC/MS										
Blank (B001183-BLK1)				Prepared: 06/20/06 Analyzed: 06/21/06						
Benzene	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
m,p-Xylene	ND	1.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Tertiary Butyl Alcohol (TBA)	ND	12	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Di-isopropyl Ether (DIPE)	ND	1.0	µg/L							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	µg/L							
Tert-Amyl Methyl Ether (TAME)	ND	1.0	µg/L							
Surrogate: Dibromofluoromethane	*22.6*		*µg/L*	*20.0*		*113*	*70-130*			
Surrogate: Toluene-d8	*22.5*		*µg/L*	*20.0*		*112*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*15.6*		*µg/L*	*20.0*		*78*	*70-130*			
Matrix Spike (B001183-MS1)		**Source: 6061603-01**		Prepared: 06/20/06 Analyzed: 06/21/06						
1,1-Dichloroethene (1,1-DCE)	25.7	1.0	µg/L	25.0	ND	103	70-130			
Benzene	28.2	1.0	µg/L	25.0	ND	113	70-130			
Trichloroethene (TCE)	28.2	1.0	µg/L	25.0	ND	113	70-130			
Toluene	29.2	1.0	µg/L	25.0	ND	117	70-130			
Chlorobenzene	26.8	1.0	µg/L	25.0	ND	107	70-130			
Surrogate: Dibromofluoromethane	*22.3*		*µg/L*	*20.0*		*112*	*70-130*			
Surrogate: Toluene-d8	*22.8*		*µg/L*	*20.0*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*15.9*		*µg/L*	*20.0*		*80*	*70-130*			
Matrix Spike Dup (B001183-MSD1)		**Source: 6061603-01**		Prepared: 06/20/06 Analyzed: 06/21/06						
1,1-Dichloroethene (1,1-DCE)	24.6	1.0	µg/L	25.0	ND	98	70-130	5	20	
Benzene	27.6	1.0	µg/L	25.0	ND	110	70-130	3	20	
Trichloroethene (TCE)	27.1	1.0	µg/L	25.0	ND	108	70-130	5	20	
Toluene	28.5	1.0	µg/L	25.0	ND	114	70-130	3	20	
Chlorobenzene	26.0	1.0	µg/L	25.0	ND	104	70-130	3	20	
Surrogate: Dibromofluoromethane	*22.5*		*µg/L*	*20.0*		*112*	*70-130*			
Surrogate: Toluene-d8	*22.7*		*µg/L*	*20.0*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*15.7*		*µg/L*	*20.0*		*78*	*70-130*			

TPH Diesel in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001178 - EPA 3510C										
Blank (B001178-BLK1)				Prepared: 06/20/06 Analyzed: 06/24/06						
Diesel	ND	50	µg/L							
LCS (B001178-BS1)				Prepared: 06/20/06 Analyzed: 06/24/06						
Diesel	3070	50	µg/L	2740		112	65-135			
LCS Dup (B001178-BSD1)				Prepared: 06/20/06 Analyzed: 06/24/06						
Diesel	3280	50	µg/L	2740		120	65-135	7	30	

Nitrate as Nitrogen in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001153 - Default Prep GenChem										
Blank (B001153-BLK1)				Prepared & Analyzed: 06/13/06						
Nitrate as N	ND	0.10	mg/L							
LCS (B001153-BS1)				Prepared & Analyzed: 06/13/06						
Nitrate as N	0.444	0.10	mg/L	0.452		98	80-120			
LCS Dup (B001153-BSD1)				Prepared & Analyzed: 06/13/06						
Nitrate as N	0.429	0.10	mg/L	0.452		95	80-120	3	20	

Nitrite as Nitrogen in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001153 - Default Prep GenChem										
Blank (B001153-BLK1)				Prepared & Analyzed: 06/13/06						
Nitrite as N	ND	0.10	mg/L							
LCS (B001153-BS1)				Prepared & Analyzed: 06/13/06						
Nitrite as N	0.150	0.10	mg/L	0.152		99	80-120			
LCS Dup (B001153-BSD1)				Prepared & Analyzed: 06/13/06						
Nitrite as N	0.152	0.10	mg/L	0.152		100	80-120	1	20	

Ammonia as Nitrogen in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001214 - Default Prep GenChem										
Blank (B001214-BLK1)				Prepared & Analyzed: 06/28/06						
Ammonia as N	ND	0.2	mg/L							
LCS (B001214-BS1)				Prepared & Analyzed: 06/28/06						
Ammonia as N	1.0	0.2	mg/L	1.00		100	70-130			
LCS Dup (B001214-BSD1)				Prepared & Analyzed: 06/28/06						
Ammonia as N	1.0	0.2	mg/L	1.00		100	70-130	0	20	

Phosphate in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B001153 - Default Prep GenChem										
Blank (B001153-BLK1)				Prepared & Analyzed: 06/13/06						
Phosphate	ND	0.10	mg/L							
LCS (B001153-BS1)				Prepared & Analyzed: 06/13/06						
Phosphate	2.88	0.10	mg/L	3.00		96	70-130			
LCS Dup (B001153-BSD1)				Prepared & Analyzed: 06/13/06						
Phosphate	2.95	0.10	mg/L	3.00		98	70-130	2	20	

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference

Analytical Sciences
P.O. Box 750336, Petaluma, CA 94975-0336
110 Liberty Street, Petaluma, CA 94952
(707) 769-3128
Fax (707) 769-8093

CHAIN OF CUSTODY

LAB PROJECT NUMBER: 6061663
WINZLER & KELLY PROJECT NAME: Mani Site
WINZLER & KELLY PROJECT NUMBER: 023430S001.32002

GEOTRACKER EDF: X Y ___ N
GLOBAL ID: T0609700725

COOLER TEMPERATURE: Blue Ice °C
COC
PAGE 1 OF 1

CLIENT INFORMATION

COMPANY NAME: WINZLER & KELLY CONSULTING ENGINEERS
ADDRESS: 495 TESCONI CIRCLE, SUITE 9
SANTA ROSA, CA 95401-4696
CONTACT:
PHONE#: (707) 523-1010
FAX #: (707) 527-8679

TURNAROUND TIME (check one)

MOBILE LAB ___
SAME DAY ___
48 HOURS ___ 24 HOURS ___
5 DAYS ___ NORMAL X

Duplicate

ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH GAS/BTEX EPA 8015M/8020	TPH DIESEL / MOTOR OIL EPA 3015M	VOLATILE HYDROCARBONS EPA 8260B (EPA LIST)	BTEX & OXYGENATES + NAPHTHALENE EPA 8260B	OXYGENATED FUEL ADDITIVES EPA 8260B	CHLORINATED SOLVENTS EPA 8010 / EPA 8260B	SEMI-VOLATILE HYDROCARBONS EPA 8270	TRPH / TOG SM 5520F / EPA 418.1M	PESTICIDES / PCB'S EPA 8081 / 8141 / 8082	CAM 17 METALS / 5 LUFT METALS	TOTAL LEAD	Nitrate as N, Nitrites as N, TKN	Ammonia as N	COMMENTS	LAB SAMPLE #
1	MW-2	6/1/06	12:39	W	7	Y/N	X	X		X								X	X	6061603	-01
2	MW-6		11:47		7																-02
3	MW-4		12:04		7																-03
4	MW-1		12:51		7																-04
5	MW-5	↓	13:15	↓	7	↓	↓	↓		↓								↓	↓	↓	-05
6																					
7																					
8																					
9																					
10																					
11																					

SIGNATURES

SAMPLED BY: Lenny Laskowsky

RELINQUISHED BY: Lenny Laskowsky
SIGNATURE
6/5/06 DATE 13:54 TIME

RECEIVED BY LABORATORY:
SIGNATURE
6/6/06 DATE 9:57 TIME

Appendix D
GeoTracker Upload Verifications

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_REPORT FILE

YOUR DOCUMENT UPLOAD WAS SUCCESSFUL!

Facility Name:	MANI, RICHARD
Global ID:	T0609700725
Title:	Annual/1st Qtr 2006 Groundwater Monitoring Report
Document Type:	Monitoring Report - Annual
Submittal Type:	GEO_REPORT
Submittal Date/Time:	6/26/2006 5:01:24 PM
Confirmation Number:	1885328531

Click here to view the document.

Back to Main Menu

Logged in as WINZLER (AUTH_RP) CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 5614850044
Date/Time of Submittal: 6/26/2006 4:38:13 PM
Facility Global ID: T0609700725
Facility Name: MANI, RICHARD
Submittal Title: 1st Qtr 2006 EDF Report 6042101
Submittal Type: Additional Information Report

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**2nd Qtr 2006 Well Measurement File, Mani Site**
Submittal Date/Time:	**6/26/2006 5:11:07 PM**
Confirmation Number:	**7837995767**

Back to Main Menu

Logged in as WINZLER (AUTH_RP) CONTACT SITE ADMINISTRATOR.